

IN THE DRAWINGS

The attached sheets of drawings includes changes to Figures 1, 3-6, 11-13, 17B, 18, and 22. These sheets, which include Figures 1, 3-6, 11-13, 17B, 18, and 22, replace the original sheets including Figures 1, 3-6, 11-13, 17B, 18, and 22.

Attachment: 11 Replacement Sheets

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-23 are pending in this case. Claims 9 and 15 are amended by the present amendment. The changes to the claims are supported by the originally filed specification and, thus, add no new subject matter.

Initially, Applicant and Applicant's representatives thank Examiner Jackson and Examiner Valentine for the courtesy of an interview on September 13, 2007. The discussion of Claim 1 during that meeting is substantially reiterated in the remarks herein.

The outstanding Office Action objected to Figures 1, 3-6, 11-13, 17B, 18, and 22. The Specification was objected to at paragraphs [0003], [0005], [0035], and [0037]. Paragraph [0004] was cited as an improper information disclosure statement. Claim 9 was objected to; Claims 15-23 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1-7 were rejected under 35 U.S.C. § 102(b) as anticipated by Ovshinsky et. al. (U.S. Patent No. 6,141,241, herein "Ovshinsky"); Claims 15-17 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ovshinsky; and Claims 8-14 and 18-23 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ovshinsky in view of McClure (U.S. Patent No. 5,657,292).

Replacement sheets including Figures 1, 3-6, 11-13, 17B, 18, and 22 are submitted by the present amendment. Thus, Applicant respectfully requests that the objections to the drawings be withdrawn.

Objections to the Specification are addressed by the present amendment. The Abstract is amended to conform with the word count requirement. The Specification is amended to address informalities noted in the outstanding Office Action. An Information Disclosure Statement has been submitted regarding the reference cited in Specification at

paragraph [0004]. Thus, Applicant respectfully requests that the objections to the Specification be withdrawn.

Claim 9 is amended to correct the grammatical informality. Thus, Applicants respectfully request that the objection to Claim 9 be withdrawn.

Claim 15 is amended to address the rejection under 35 U.S.C. § 112, second paragraph. Thus, Applicant respectfully requests that the rejection under 35 U.S.C. § 112, second paragraph, of Claim 15 and Claims 16-23, which depend therefrom, be withdrawn.

Applicant now traverses the rejection of the claims under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a).

Claim 1 is directed to a phase change memory device and includes “a **read/write circuit formed on said semiconductor substrate as underlying said cell arrays** for reading and writing data of said cell arrays,” “**first and second vertical wirings** disposed outside of first and second boundaries that define a cell layout region of said cell arrays in said first direction **to connect said bit lines** of the respective cell arrays **to said read/write circuit**” and “**third vertical wirings** disposed outside of one of third and fourth boundaries that define said cell layout region in said second direction **to connect said word lines** of the respective cell arrays **to said read/write circuit.**”

The outstanding Office Action cites Ovshinsky as disclosing the above-quoted features of Claim 1 at column 7, lines 52-57 and with vertical vias 44 discussed, *inter alia*, at column 19, lines 8-12.

Ovshinsky describes an arrangement of universal memory elements for which read and write operations are performed with the apparatus depicted in Figure 5. However, Ovshinsky does not teach or suggest “a **read/write circuit formed on said semiconductor substrate** as underlying said cell arrays for reading and writing data of said cell arrays” as recited in Claim 1.

The vertical vias 44 of Ovshinsky “provide means for establishing **communication between the data input line 10** of a first unit cell...**and the data output line 12** of a second unit cell.”¹ Ovshinsky does not teach or suggest that those vias 44 or any other vertical wirings connect bit lines or word lines to a read/write circuit on a substrate underlying the memory cells, as recited in Claim 1. In fact, because Ovshinsky does not teach or suggest a read/write circuit as recited in Claim 1, Ovshinsky cannot teach or suggest vertical wirings connecting any data line to a read/write circuit as recited in Claim 1.

Because Ovshinsky fails to teach or suggest at least the read/write circuit, first and second vertical wirings and third vertical wirings as recited in Claim 1, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 102(b) be withdrawn.

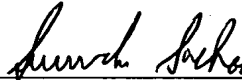
Claims 2-23 depend from Claim 1 and, therefore, are patentable for at least the reasons discussed above with respect to Claim 1. Further, McClure, which is cited against Claims 8-14 and 18-23, fails to cure the above-noted deficiencies of Ovshinsky. Thus, Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) of Claims 2-7 and the rejection under 35 U.S.C. § 103(a) of Claims 8-23 be withdrawn.

¹ See Ovshinsky at column 19, lines 39-43.

Accordingly, the outstanding rejections are traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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